

### **Abstract**

[00049] Virus-based expression vectors carrying sequences corresponding to endogenous host genes trigger silencing through a homology-dependent RNA degradation mechanism. Virus-induced gene silencing (VIGS), is useful as a reverse-genetic tool for use in functional genomic programs for loss-of-function transient assays-based screening. Described herein is an approach to enhance the robustness of the VIGS phenotype by increasing the level of dsRNA molecule production.